

"HEY, DOC, WHAT IS THIS THING?"

By Lt. Walter Kucaba

It's midmorning in the Australian Outback; the sun already is blazing, and the temperature is nearing 100 degrees. I'm making my morning rounds of the squadron when a salty staff sergeant from the seat shop stops me and asks, "Hey, doc, what is this thing on my forehead?"

After much review through the dermatologists, an e-mail consult, and finally an out-and-in to Japan, this crusty Marine was diagnosed with a benign-pigmented lesion from chronic sun exposure. He always had avoided sunscreen. His case increased my situational awareness and scan pattern for other signs of chronic sun-induced damage in my squadron, namely the aircrews and maintainers.

Hornet aircrew and maintainers get lots of sun. Chronic sun exposure is cumulative during a lifetime and can lead to melanoma. If not caught early, melanoma can be a devastating cancer that turns deadly. Melanoma in the United States is not rare; it's growing at a faster rate than any other cancer. In 1935, the incidence was one in 1,500 individuals; today, it's one in 70. In 1999, there were 51,400 new cases and 7,800 deaths. Melanoma is the second most prevalent cancer in males 30 to 49 years old. One in four patients diagnosed with melanoma is under 40 years old.

While melanoma accounts for only five percent of all skin cancers, it causes 75 percent of all skin-cancer deaths. The incidence in the year 2010 is expected to be 1 in 50. These numbers don't include the other more common types of skin cancers—squamous cell and basal cell—which also are caused by sun exposure.

Signs of chronic sun damage include increased freckling with the development of lentigos or sun spots, hypopigmented areas, and wrinkling. Another sign is actinic keratosis (pink to red lesions on the skin with



Early signs of chronic-sun exposure with wrinkling and classic leatherneck appearance.

a white, yellow or gray scale). The lesions usually are located on the head, neck and arms, and they can turn into cancer.

Actinic Keratosis

Annoying lesions that peel or flake indicate actinic keratosis. Appearing on the head, neck and hands, the lesions are a precursor to cancer formation.



The canopy on an F-18 Hornet is made of stretched acrylic. According to the Boeing company, this material does not filter the sun's UV rays. When we fly, our helmet, visor and facemask protect our head from the sun's rays, but our necks remain exposed. Several aircrew in my squadron had early signs of sun damage,

Here's an excellent checklist for questioning that funny-looking mole you may have:

Asymmetry

Unusual-looking mole, asymmetrical. A mole that looks like the state of Texas should be examined.



Border and Bleeding

The border of the mole should be smooth, with a clear distinction between skin and the mole. The border of the mole should not look like the coastline of Ireland. Also, if it bleeds, get it checked.



Color

Most moles are brown or tan. If you see variation in the color, get it checked.



Diameter

Many melanomas are greater than 6 mm, but, generally, if the mole is wider than the eraser head of a pencil, get it checked. Don't wait until you can pick it up on the FLIR.



Enlarging- Erythema

If the mole increases in size, or the skin surrounding the lesion is red and irritated, get it checked.



This aviator did not wear a glove on his throttle hand. He has developed early signs of aging: the leathery appearance of the skin. Note sun-induced lentigos in the middle of the hand.

with increased wrinkling on their necks. The term "leatherneck" fits well.

Besides seeing sun damage on necks, I've seen many cases where the hands were damaged. Sun-induced pigmented lesions, along with increased wrinkling, are hand-related problems.

Many maintainers had the same types of skin damage as the aircrew. Why? Because they spend many hours on the flightline, launching and recovering aircraft.

How can we protect ourselves and not become one of the statistics? Aircrews should wear their Nomex gloves. Fold up the collar on flightsuits to protect the back of the neck and to prevent early wrinkle formation. Maintainers on the line frequently and liberally should apply some form of sunblock, with an SPF of 30 or greater.

Our Marine from the seat shop was happy that his problem was just a sunspot, and he now uses sunblock out on the line. We monitor him every six months for any change or development of new lesions. Sun-damaged skin can turn into cancer, so you constantly must watch for changes.

Melanoma can be a stealthy disease—one that sneaks up on you like an SA-7. Our radar-warning receiver giving SA on this disease is prevention with a thorough and complete physical. If you notice your moles looking odd or changing, don't wait to get them checked. Your flight surgeon and dermatologist are ready to roll in and drop a diamond on the suspected lesion to give you treatment or peace of mind. 🛩️

Some excellent websites for review include:

- <http://www.aad.org>
- <http://medlineplus.nlm.nih.gov/medlineplus/melanoma.html>

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